

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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Claim 1 (currently amended): A biopsy device suitable for collection of a tissue sample from a biopsy site in a body lumen, the biopsy device comprising:

an introducer assembly comprising a hollow sheath having a distal end portion and a proximal end portion, and the distal end portion of the introducer sheath defining at least one side aperture for receiving a tissue mass;

a cutter assembly comprising a hollow cutter tube having a distal end portion and a proximal end portion, the cutter tube being sized to be slidable received within and extend axially through the introducer sheath, and the distal end portion of the cutter tube including at least one cutting edge;

an endoscope assembly including a fiber optic bundle for viewing the biopsy site, the bundle being sized to be received within and extend axially through though the cutter tube; and

the cutter tube and the introducer sheath cooperating to sever the tissue sample by relative movement therebetween.

Claim 2 (withdrawn): The biopsy device of claim 1, wherein the distal end portion of the cutter tube further defines a notch.

Claim 3 (withdrawn): The biopsy device of claim 2, wherein the distal end portion of the cutter tube is rotatable relative to the introducer distal end portion.

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Claim 4 (withdrawn): The biopsy device of claim 2, wherein the introducer distal end portion is rotatable relative to the distal end portion of the cutter tube.

Claim 5 (withdrawn): The biopsy device of claim 1, wherein the distal end portion of the cutter tube includes a cutter aperture.

Claim 6 (withdrawn): The biopsy device of claim 5, wherein the distal end portion of the cutter tube is rotatable relative to the introducer distal end portion.

Claim 7 (withdrawn): The biopsy device of claim 5, wherein the introducer distal end portion is rotatable relative to the distal end portion of the cutter tube.

Claim 8 (withdrawn): The biopsy device of claim 5, wherein the distal end portion of the cutter tube is axially reciprocatable relative to the introducer distal end portion.

Claim 9 (withdrawn): The biopsy device of claim 5, wherein the cutter aperture further includes a barbed portion.

Claim 10 (original): The biopsy device of claim 1, wherein the distal end portion of the cutter tube includes a cutting edge.

Claim 11 (withdrawn): The biopsy device of claim 10, wherein the distal end portion of the cutter tube is extendable past the distal end of the introducer.

Claim 12 (withdrawn): The biopsy device of claim 11, wherein the cutter tube is rotatable.

Claim 13 (withdrawn): The biopsy device of claim 10, wherein the introducer sheath at the distal end portion thereof defines an introducer reservoir.

Claim 14 (withdrawn): The biopsy device of claim 1, wherein the cutter tube and the endoscope assembly define a liquid passageway.

Claim 15 (withdrawn): The biopsy device of claim 1, wherein the introducer hollow sheath inner diameter is about 0.001 inches to about 0.1 inches greater than the outer diameter of the cutter tube.

Claim 16 (withdrawn): The biopsy device of claim 1, wherein the introducer hollow sheath inner diameter is about 0.0002 inches to about 0.001 inches greater than the outer diameter of the cutter tube.

Claim 17 (withdrawn): The biopsy device of claim 1, wherein the introducer side aperture has an axial length of about 1 millimeter to about 5 millimeters.

Claim 18 (withdrawn): The biopsy device of claim 1, wherein the introducer side aperture has an axial length of about 2 millimeter to about 3 millimeters.

Claim 19 (withdrawn): The biopsy device of claim 1, wherein the introducer side aperture extends over about one-half the introducer hollow sheath circumference.

Claim 20 (withdrawn): The biopsy device of claim 1, wherein the introducer distal end portion includes an open end.

Claim 21 (withdrawn): The biopsy device of claim 1, wherein the introducer distal end portion includes a plurality of side apertures.

Claim 22 (withdrawn): The biopsy device of claim 1, wherein the cutting edge is provided with crenations.

Claim 23 (original): A biopsy device suitable for collection of a tissue sample from a biopsy site in a body lumen, the biopsy device comprising:

an introducer assembly, a cutter assembly slidably received within the introducer assembly, and an endoscope assembly situated within the cutter assembly;

the introducer assembly comprising a tubular sheath having a distal end portion that defines a side aperture for receiving the tissue sample;

the cutter assembly comprising a hollow cylindrical cutter having a distal end portion, the cutter being co-axial with the introducer sheath and having a lesser outside diameter than the introducer sheath inside diameter, the cylindrical cutter including at least one cutting edge;

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the endoscope assembly comprising a fiber optic bundle, the fiber optic bundle being co-axial with the hollow cutter and having a lesser outside diameter than the cutter inside diameter; and

at least the introducer distal end portion and the cutter distal end portion being mounted for movement relative to one another, the relative movement of the cutter distal end portion and the distal end portion of the tubular sheath causing the cutting of the tissue sample received therebetween.

Claim 24 (withdrawn): The biopsy device of claim 23, wherein the distal end portion of the cylindrical cutter further defines a notch.

Claim 25 (withdrawn): The biopsy device of claim 24, wherein the distal end portion of the cylindrical cutter is rotatable relative to the sheath distal end portion.

Claim 26 (withdrawn): The biopsy device of claim 24, wherein the sheath distal end portion is rotatable relative to the distal end portion of the cylindrical cutter.

Claim 27 (withdrawn): The biopsy device of claim 23, wherein the distal end portion of the cylindrical cutter includes a cutter aperture.

Claim 28 (withdrawn): The biopsy device of claim 27, wherein the distal end portion of the cylindrical cutter is rotatable relative to the sheath distal end portion.

Claim 29 (withdrawn): The biopsy device of claim 27, wherein the sheath distal end portion is rotatable relative to the distal end portion of the cylindrical cutter.

Claim 30 (withdrawn): The biopsy device of claim 27, wherein the distal end portion of the cylindrical cutter is axially reciprocatable relative to the sheath distal end portion.

Claim 31 (withdrawn): The biopsy device of claim 27, wherein the cutter aperture further includes a barbed portion.

Claim 32 (original): The biopsy device of claim 23, wherein the distal end portion of the cylindrical cutter includes a cutting edge.

Claim 33 (withdrawn): The biopsy device of claim 32, wherein the distal end portion of the cylindrical cutter is extendable past the distal end of the sheath.

Claim 34 (withdrawn): The biopsy device of claim 33, wherein the cylindrical cutter is rotatable.

Claim 35 (withdrawn): The biopsy device of claim 32, wherein the sheath at the distal end portion thereof defines an introducer reservoir.

Claim 36 (withdrawn): The biopsy device of claim 23, wherein the cylindrical cutter and the endoscope assembly define a liquid passageway.

Claim 37 (withdrawn): The biopsy device of claim 23, wherein the sheath inner diameter is about 0.001 inches to about 0.1 inches greater than the outer diameter of the cylindrical cutter.

Claim 38 (withdrawn): The biopsy device of claim 23, wherein the sheath inner diameter is about 0.0002 inches to about 0.001 inches greater than the outer diameter of the cylindrical cutter.

Claim 39 (withdrawn): The biopsy device of claim 23, wherein the introducer side aperture has an axial length of about 1 millimeter to about 5 millimeters.

Claim 40 (withdrawn): The biopsy device of claim 23, wherein the introducer side aperture has an axial length of about 2 millimeter to about 3 millimeters.

Claim 41 (withdrawn): The biopsy device of claim 23, wherein the introducer side aperture extends over about one-half the sheath circumference.

Claim 42 (withdrawn): The biopsy device of claim 23, wherein the sheath distal end portion includes an open end.

Claim 43 (withdrawn): The biopsy device of claim 23, wherein the sheath distal end portion includes a plurality of side apertures.

Claim 44 (withdrawn): The biopsy device of claim 23, wherein the cutting edge is provided with crenations.

Claim 45 (original): A biopsy device suitable for collection of a tissue sample from a biopsy site in a body lumen, the biopsy device comprising an introducer assembly having an introducer distal end portion, a cutter assembly within the introducer assembly and having a cutter distal end portion, and an endoscope within the cutter assembly and having a fiber optic bundle distal end portion;

a working end portion of the biopsy device comprising the introducer distal end portion, the cutter distal end portion, and the fiber optic bundle distal end portion;

the introducer distal end portion having a tubular configuration and defining at least one side aperture;

the cutter distal end portion having a tubular configuration and including a cutting edge;

the cutter distal end portion being slidably received within the introducer distal end portion and the fiber optic bundle distal end portion being received inserted within the cutter distal end portion, and

the cutter distal end portion coacting with the introducer distal end portion to cut the tissue sample.

Claim 46 (withdrawn): The biopsy device of claim 45, wherein the cutter distal end portion further defines a notch.

Claim 47 (withdrawn): The biopsy device of claim 46, wherein the cutter distal end portion is rotatable relative to the introducer distal end portion.

Claim 48 (withdrawn): The biopsy device of claim 46, wherein the introducer distal end portion is rotatable relative to the cutter distal end portion.

Claim 49 (withdrawn): The biopsy device of claim 45, wherein the cutter distal end portion further includes a cutter aperture.

Claim 50 (withdrawn): The biopsy device of claim 49, wherein the cutter distal end portion is rotatable relative to the introducer distal end portion.

Claim 51 (withdrawn): The biopsy device of claim 49, wherein the introducer distal end portion is rotatable relative to the cutter distal end portion.

Claim 52 (withdrawn): The biopsy device of claim 49, wherein the cutter distal end portion is axially reciprocatable relative to the introducer distal end portion.

Claim 53 (withdrawn): The biopsy device of claim 49, wherein the cutter aperture further includes a barbed portion.

Claim 54 (original): The biopsy device of claim 45, wherein the cutter distal end portion includes a cutting edge.

Claim 55 (withdrawn): The biopsy device of claim 54, wherein the cutter distal end portion is extendable past the introducer distal end portion.

Claim 56 (withdrawn): The biopsy device of claim 55, wherein the cutter distal end portion is rotatable.

Claim 57 (withdrawn): The biopsy device of claim 54, wherein the introducer distal end portion includes an introducer reservoir.

Claim 58 (withdrawn): The biopsy device of claim 45, wherein the cutter distal end portion and the endoscope assembly define a passageway.

Claim 59 (withdrawn): The biopsy device of claim 45, wherein the introducer distal end portion is about 0.001 inches to about 0.1 inches greater less than the outer diameter of the cutter distal end portion.

Claim 60 (withdrawn): The biopsy device of claim 45, wherein the introducer distal end portion has an inner diameter about 0.0002 inches to about 0.001 inches greater than the outer diameter of the cutter distal end portion.

Claim 61 (withdrawn): The biopsy device of claim 45, wherein the introducer side aperture has an axial length of about 1 millimeter to about 5 millimeters.

Claim 62 (withdrawn): The biopsy device of claim 45, wherein the introducer side aperture has an axial length of about 2 millimeter to about 3 millimeters.

Claim 63 (withdrawn): The biopsy device of claim 45, wherein the introducer side aperture extends over about one-half the introducer distal end portion circumference.

Claim 64 (withdrawn): The biopsy device of claim 45, wherein the introducer distal end portion includes an open end.

Claim 65 (withdrawn): The biopsy device of claim 45, wherein the introducer distal end portion includes a plurality of side apertures.

Claim 66 (withdrawn): The biopsy device of claim 45, wherein the cutting edge further includes crenations.